Before the
FEDERAL COMMUNICATIONS COMMISISON
Washington, DC

WT Docket No. 06-150
And PS Docket No. 06-229

In the Matter of:

Service Rules for the 698-746, 747-762
and 777-792 MHz Bands

Implementing a Nationwide,
Broadband, Interoperable Public
Safety Network in the 700 MHz
Band

Comments Filed by:

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1. Basis for Actions Proposed in this Comment

There is no doubt that the First Responder Community has many communications issues to deal with on a Federal, State and Local basis, nor is there any doubt that the attempt by the FCC to provide a public/private partnership by auctioning what was known as the 700-MHz D block, might have provided the first step in what will be a long process of providing better, more effective and less costly communications for our First Responders at all levels. For a variety of reasons, there was not a winner of the D block and the FCC has, once again, asked for comments from interested parties.

While much has been written concerning the failure of the D block in the last auction, the fact is that it was a failure and we are now faced with a number of issues including those outlined in the Second Further Notice of Proposed Rulemaking issued by the FCC on May 14, 2008.

My comments are based on my belief that the idea of a public/private partnership is a valid one and that it can be accomplished with some changes to the proposed rules and bidding procedures.

I also believe that while we are rethinking this partnership we should include another element into the mix: Providing a cost-effective solution for broadband services in Rural America. Report after report shows that the United States is far behind in the delivery of broadband services, especially in Rural America. With the coverage requirements for the public/private partnership, it is clear to me that not only can this partnership be used to solve some of the First Responder communications issues, it can also serve to provide wireless broadband coverage to homes and businesses that, today, do not have any broadband options except, perhaps, a connection via satellite.

There were and are a number of concerns with the original D block auction, one of which has to do with the cost of constructing the proposed network to the standards set by the Public Safety Spectrum Trust (PSST). In the body of my comments, I will address some of these concerns, but before continuing, I would like to point out that with the added requirement for Rural America broadband there would be additional Federal funding that could be used to offset some of the public/private system's costs.

In short, I believe it is imperative that we provide the First (and Second) Responder community with the ability to employ commercial technologies for high-speed data services, video and, at some future time, voice using Voice over IP (VoIP) technology. However, it also should be acknowledged by both the commercial community and First Responders that this network will not, in the mid-term, solve voice interoperability; rather, it will provide interoperability for data and video services, which are becoming more important. However, data by itself is not enough. First Responders will continue to need to make use their own wide-area networks as well as scores of simplex channels for voice, push-to-talk and one-to-many communications.

The public/private network can provide useful augmented services for voice dispatch and voice coordination at incidents, but it will not solve voice interoperability problems, nor will it alone solve the ongoing interoperability issues of Federal, State and local two-way radio networks that are spread out over a number of different frequency bands, requiring the First Responder community to spend thousands of dollars per radio for their services.

The 700-MHz broadband network is needed, of that there is no doubt in my mind. However, we must augment these efforts to provide interoperability between the voice dispatch and incident communications systems. The problem of voice interoperability cannot simply be forgotten as we move toward a broadband network that will serve the First and Second Responder organizations and provide access on a nationwide basis for commercial customers on a secondary basis. It is important that we understand the distance between what commercial networks can offer the First

Responder community today and satisfying the unique and demanding voice requirements of the First Responder community.

Voice requirements for First Responders are very different from what is offered on today's commercial wireless networks. One-to-many for dispatch, incident evaluation and coordination cannot simply be replaced with data services. Even departments that already make use of Mobile Data Terminals on a daily basis need to send additional information to those who have been dispatched to an incident, and they still need to verbally announce the incident to all and specify who is to respond. This requirement will not change because this one-to-many voice communications capability is the fastest and most efficient method of notification and incident reporting. Further, once on the scene of an incident, many channels that do NOT rely on a cell site, repeater or base station are called into service for on-the-scene coordination and incident control. These channels are known as simplex channels or, in today's Internet language, peer-to-multi-peer short-range communications. Today's commercial networks do not support these types of voice communications that are such a vital part of the First Responders communications requirements.

The 700-MHz D block, coupled with the First Responders corresponding spectrum allocated for broadband, is vitally important to solving a number of first responder interoperability issues, but once the auction is over and the network design is in progress, it won't mean we have solved the First Responders interoperability problems. We will have assisted them with their data and video requirements, and perhaps some command-and-control voice using VoIP, but we will not have done much to solve the voice interoperability issues that will remain and should be addressed in different ways.

Among the factors that resulted in no winning bid for the D block, I believe primary factor was the perceived cost of the public/private network build-out and monthly operational costs. Analysts have been providing estimates of what this network will cost and they run from a low of $12 billion to a more realistic figure of $20 billion. The costs would be lower if an incumbent network operator was the winning bidder, but only 3 million First Responders and perhaps 3 million Secondary Responders use this spectrum. Considering the fact that commercial networks currently serve more than 250 million of a total U.S. population of 303 million (est.), it would not be fiscally responsible for a single network operator, whether an incumbent or newcomer, to step up and take on this project.

Further, while the debate over the D block continues, the FCC is considering auctioning AWS Phase III (2155-2180 MHz) and requiring the winning bidder to provide 786 Kbps data for up to 95% of the U.S. population. The FCC is also being lobbied heavily to provide additional unlicensed spectrum in the white space between TV stations, and the new Clearwire is in the process of building out a nationwide WiMAX network which, it claims, will be available for the First Responder community. Each of these actions by themselves lessens the number of potential customers that could be expected to pay for data services offered over the D block/Public Safety network.

For example, in the San Francisco Bay area today, the 3.5 million residents have fourteen choices for voice and broadband services including wired/DSL, cable, national and regional wireless companies, MVNOs and Wi-Fi hotspots. If Clearwire and AWS III is deployed there, and white space unlicensed spectrum use is approved, the number of potential services could easily grow to twenty (including resellers). Common sense and financial modeling show that all twenty of these service providers cannot survive long term, and the ones that come into the market late will have high marketing costs and a low return on investment, which will make it financially unsound for them to continue in business.

We need to provide our First Responder community with more communications assets, and we need to help solve the interoperability problems and upgrade their technologies to those used in

the commercial sector that are more cost effective. However, the D block and the First Responder community issues cannot be solved in a vacuum. Many other factors must be taken into consideration.

Therefore, with all the above factors taken into consideration, my proposal is as follows:

1) No single wireless service provider, either incumbent or new, can afford to undertake the construction and ongoing costs associated with this public/private network.
2) We can use this opportunity not only to help solve some of the First Responders interoperability problems, but to solve the Rural America Broadband problem as well by including rural partners that can bring additional assets to the network.
3) Bidders for this network should be limited to systems management companies with proven track records for managing wireless networks.
4) The systems management company (successful bidder) would be the point of interface with the PSST, rural providers and Federal officials.
5) The network would be built out by all of the incumbent wireless operators, each building a portion of the network in exchange for tax credits or other incentives.
6) Any network operator that took part in the build-out process would be given access to the spectrum on an "as-needed" basis.
7) Management and day-to-day operation of the total network would be provided by the successful bidder.
8) Since all of the network operators would be participating in the network build-out, during its construction, a nationwide contract for data services could be put into place using existing 3G networks. As a result, the First Responder community would have access to broadband services on the existing networks and could incorporate the new network into their data services plans as it was completed.

From a technology perspective, all of the above can be accomplished today. The network would be built out sooner and would include coverage in Rural America from the onset. Today there are chipsets that would enable First Responders to operate on any U.S. wireless network that offers broadband services, and software could be developed to provide seamless roaming across all of the networks based on location and need.

The network itself would be less expensive to build and could be built out while each network operators builds out its own 700-MHz network and existing cell sites could be used. Since the network would be based on an all-IP wireless technology with an all-IP back-end, it will be possible to integrate existing wireless broadband networks with the new network and then disengage from the existing commercial 3G networks as the new public/private network comes on line.

The issues that would need to be resolved have to do with politics, network ownership, value of the spectrum and similar matters. These would need to be carefully worked through in a series of pre-auction meetings. The incentives for the network operators would be in the form of tax credits or other Federal involvement, and the Federal funds that are available for Rural Broadband services would be applied to the cost of the public/private network and its ongoing operational costs.

I believe the development of a cooperative strategy is the only way we can reach the goal of a network built to First Responder community requirements. Due to the nature of the network requirements presented by the PSST, this will be the most expensive wireless network ever to be built out in the United States. Again, my take is that there is not a single incumbent wireless network operator or prospective network operator that could afford to make such a large investment with an unknown return on that investment. Even if a company were to step forward and believed an advertising-supported model could be followed to build this network, its interests

would only cover major population centers. I doubt if it would have any interest in building the network to cover sparsely populated areas of the nation because the advertising revenue would not warrant the expense of network construction.

The specifics of the auction need to be worked out by the FCC, but I believe that series of pre-auction meetings should be scheduled for all interested parties including the FCC. Further, the auction reserve price should be lowered and the penalty clause should be omitted from the rules. Finally, the auction should be held without anti-collusion requirements so that interested parties could work together to ensure a successful auction.

There are several other existing or proposed Federal projects that could be melded into this network. These include the U.S. Department of Transportation highway program and others that have been funded or are waiting to be funded. If this network is to be used on a shared basis, it should be fully supported with as many Federal customers as possible in order to provide a steady stream of revenue for the ongoing costs associated with build-out and operations.

The attached survey, which was conducted immediately after the failed D block auction, indicates that there is support for this cooperative method of building out a true nationwide broadband network. I believe that even with the politics and other non-technical issues that need to be addressed, this approach is both the most logical and the most cost-effective way of providing for our First Responder community with the understanding that this network will provide a level of interoperability for Federal, State and local agencies, but that it will not solve all of these issues, especially when it comes to dispatch and on-scene voice communications.

We have an opportunity here to provide our First Responders with a world-class broadband wireless system and to provide wireless broadband to much of Rural America. And we can do so in a manner that does not cost any one company so much money as to be an unrealistic investment.

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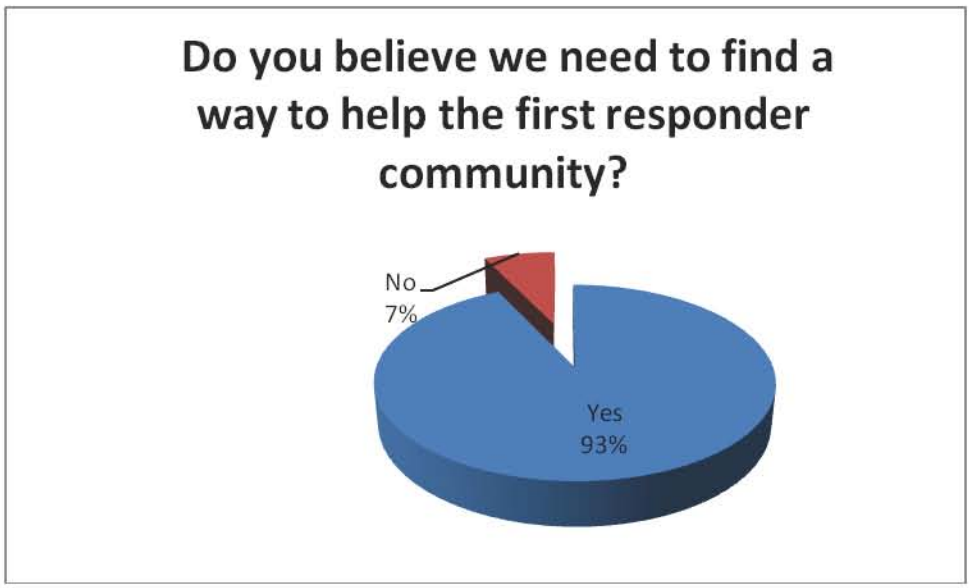
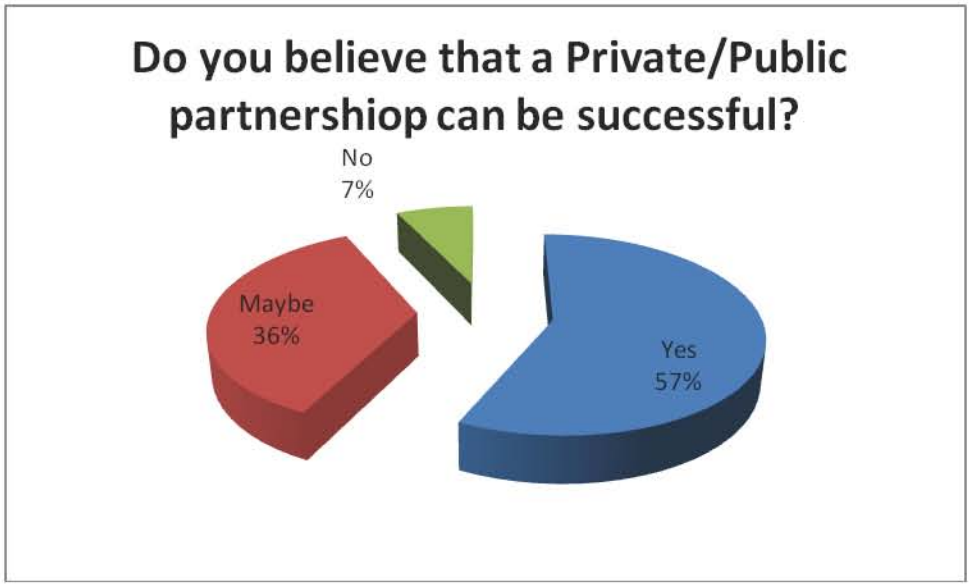
Survey Conducted by Andrew Seybold, Inc. April 7-10, 2008

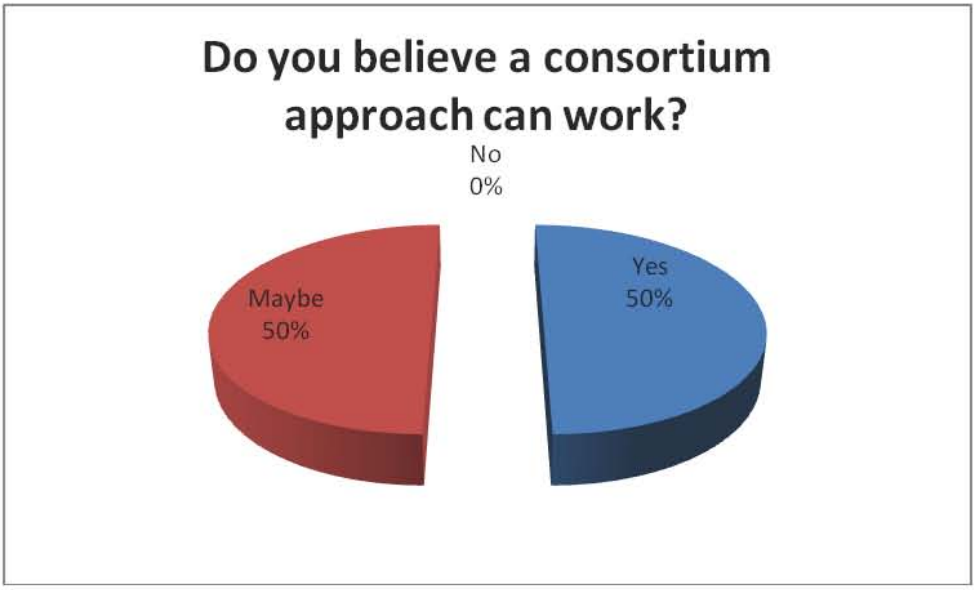
Number of respondents to date: 583
(note: Respondents have not been vetted for duplications and/or incomplete responses)

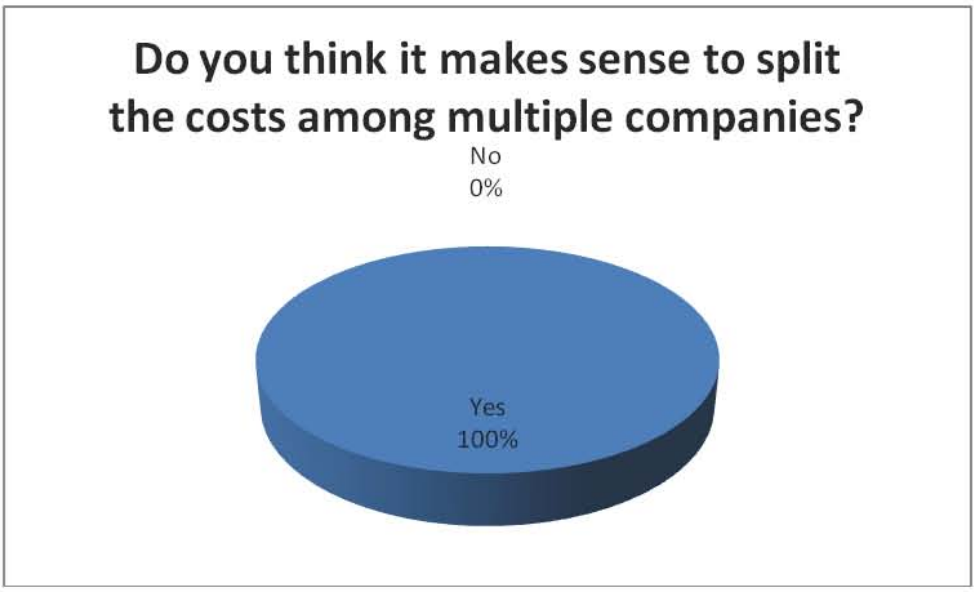
Questions and responses below:

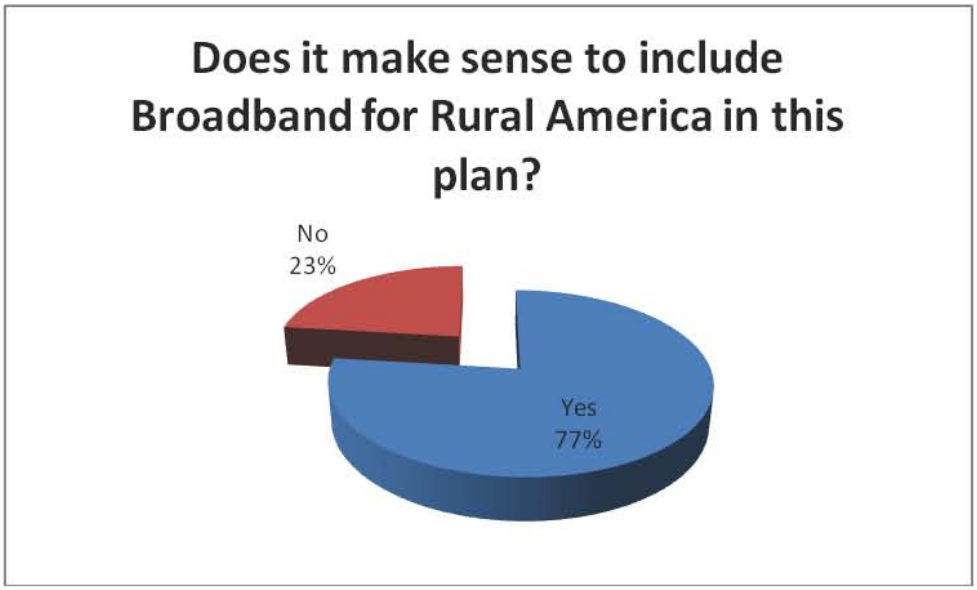


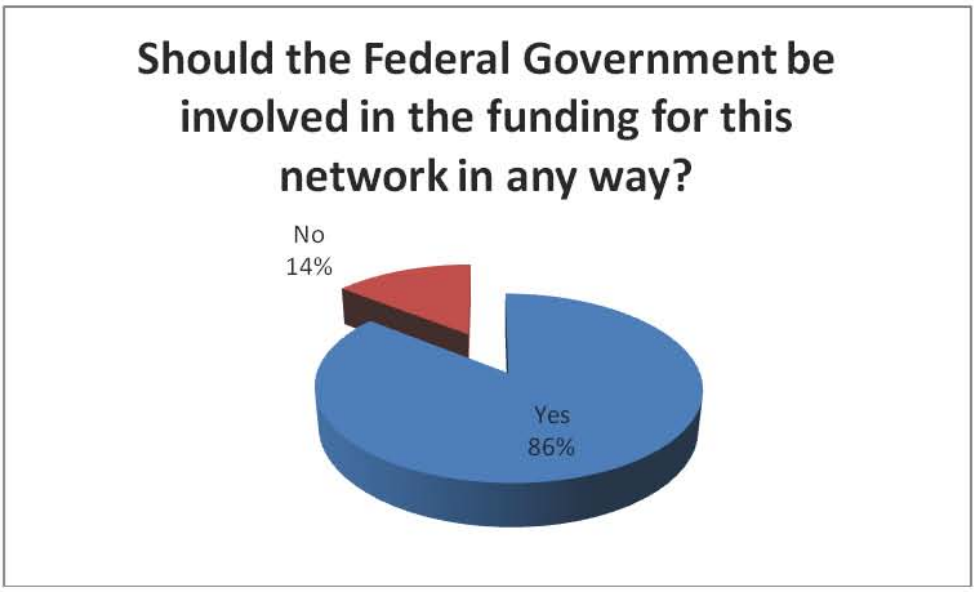



Do you believe it can be successful if a single commercial operator builds and owns the network?
No 43%
Yes 57%


Do you believe a consortium approach can work?
No 0%
Maybe 50%
Yes 50%

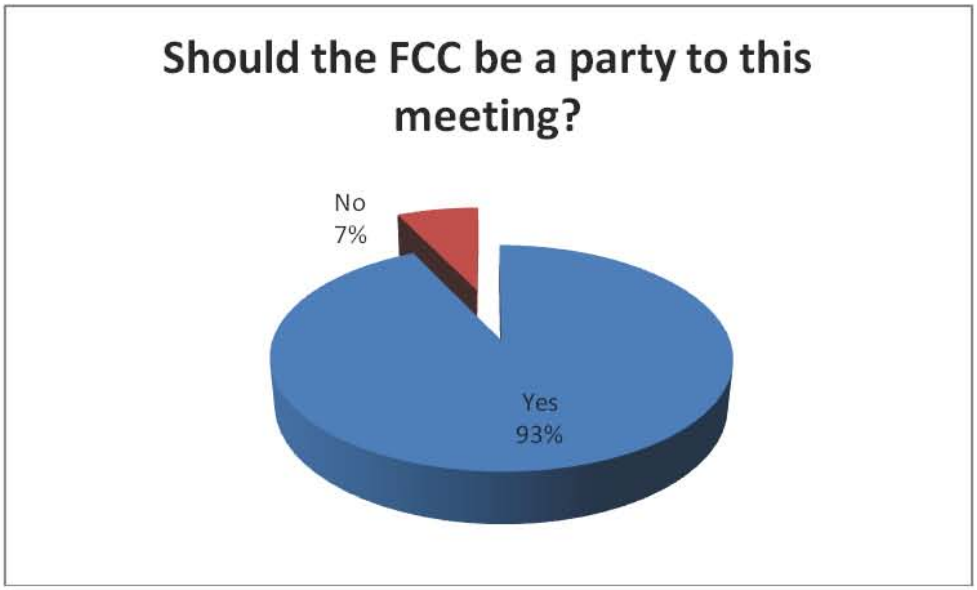

Do you think it makes sense to split the costs among multiple companies?
No
0%
Yes
100%


Does it make sense to include Broadband for Rural America in this plan?
No
23%
Yes
77%


Should the Federal Government be involved in the funding for this network in any way?
No
14%
Yes
86%


Would your company or organization want to take part in a meeting to explore consortium options?
No
18%
Yes
82%


Would your company or organization consider being one of the sponsors of such a meeting?
Yes 15%
Need More Information 46%
No 39%


Should the FCC be a party to this meeting?
No 7%
Yes 93%